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What is claimed:

1. A vacuum filtration apparatus comprising:

a base containing a funnel well with a filter seal surface disposed adjacent to the bottom of the inside wall of said funnel well, with a filter support means disposed in the bottom of said funnel well inside of said filter seal surface, with an outlet port disposed below said filter support means, said outlet port being in fluid flow communication with said filter support means,

a funnel with an open top, with the bottom outside portion of said funnel releasably attached with an interference fit to the inside wall of said funnel well of said base, said funnel containing an integral flexible filter seal disposed around the bottom of said funnel,

a filter means disposed in the bottom portion of said funnel well with the downstream surface of said filter means lying in the same plane as said filter seal surface, said filter means releasably sealed between said filter seal surface of said base and said integral flexible seal of said funnel,

whereby said integral flexible filter seal provides a leak tight releasable seal between said filter seal surface of said base and said integral flexible seal of said funnel for varying thickness' of said filter means.

2. The vacuum filtration apparatus of claim 1 wherein the releasable attachment between said funnel and said base is an interference fit between one or more integral flexible funnel seal rings protruding from the bottom outer periphery of said funnel, and the inside wall of said funnel well of said base, whereby said one or more integral flexible funnel seal rings provide a releasable attachment

3. The vacuum filtration apparatus of claim 1 wherein the top surface of the filter support means is disposed below said filter seal surface, thereby  
10 creating a pad well below said filter seal surface.

4. The vacuum filtration apparatus of claim 3 wherein an absorbent pad is disposed in said pad well, with the downstream surface of said absorbent pad resting on the top surface of said filter support means, and with a portion of the downstream surface of said filter means resting on the upstream surface of said absorbent pad.

5. The vacuum filtration apparatus of claim 4 wherein the thickness of said absorbent pad is substantially greater than the height of said pad well,

whereby the outer periphery of the absorbent pad is compressed by the filter means,

whereby said absorbent pad exerts an upward  
25 force on the downstream side of said filter means,

whereby said filter means remains in tension in both the dry and wet states,

whereby said filter means remains wrinkle free in both the dry and wet states.

30 6. The vacuum filtration apparatus of claim 1 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a heat seal, said seal forming a closed loop.

35           7. The vacuum filtration apparatus of claim 1  
wherein a portion of the filter means that is in  
contact with said filter seal surface, is sealed to

said filter seal surface with an ultrasonic seal,  
said seal forming a closed loop.

8. The vacuum filtration apparatus of claim 1  
wherein a portion of the filter means that is in  
5 contact with said filter seal surface, is sealed to  
said filter seal surface with a solvent seal, said  
seal forming a closed loop.

9. The vacuum filtration apparatus of claim 1  
wherein said base contains one or more lid clamp tabs  
10 protruding from the outside wall of said base, with  
the bottom edge of each lid clamp tab of said base  
being equidistant from the top outer wall of said  
base.

10. The vacuum filtration apparatus of claim 9  
15 wherein said funnel contains one or more lid clamp  
tabs protruding from the outside wall of said funnel,  
with the bottom edge of each lid clamp tab of said  
funnel being equidistant from the top wall of said  
funnel, and with the outside diameter of the lid  
20 clamp tabs of said funnel being equal to the outside  
diameter of the lid clamp tabs of said base.

11. The vacuum filtration apparatus of claim 10  
wherein said vacuum filtration apparatus contains a  
lid, with the outer wall of said lid being segmented  
25 by a plurality of slots in said outer wall, with each  
slot creating a gap in the bottom surface of said  
outer wall,

with the height of said slots being less than  
the height of the inner surface of said outer wall of  
30 said lid,

with the height of the inner surface of said  
outer wall of said lid being equal to or greater than  
the distance between the bottom edge of each lid  
clamp tab of said funnel and the top wall of said  
35 funnel, and with the height of inner surface of said  
outer wall of said lid being equal to or greater than  
the distance between the bottom edge of each lid

clamp tab of said base and the top outer wall of said base,

with the diameter of said inner surface of said outer wall of said lid being less than the outside diameter of the lid clamp tabs of said base,

whereby said plurality of slots in said outer wall of said lid allows said outer wall of said lid to flex,

whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said funnel with a fit that prevents said lid from accidentally disengaging from said funnel, and allows said lid to be removed from said funnel with one hand, as the outside diameter of the lid clamp tabs of said funnel vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances,

whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said base with a fit that prevents said lid from accidentally disengaging from said base, and allows said lid to be removed from said base with one hand, as the outside diameter of the lid clamp tabs of said base vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances.

12. The vacuum filtration apparatus of claim 2 wherein the top surface of the filter support means is disposed below said filter seal surface, thereby creating a pad well below said filter seal surface.

13. The vacuum filtration apparatus of claim 12 wherein an absorbent pad is disposed in said pad well, with the downstream surface of said absorbent

pad resting on the top surface of said filter support means, and with a portion of the downstream surface of said filter means resting on the upstream surface of said absorbent pad.

5        14. The vacuum filtration apparatus of claim 13 wherein the thickness of said absorbent pad is substantially greater than the height of said pad well,

whereby the outer periphery of the absorbent pad is compressed by the filter means,

whereby said absorbent pad exerts an upward force on the downstream side of said filter means,

whereby said filter means remains in tension in both the dry and wet states,

15        whereby said filter means remains wrinkle free in both the dry and wet states.

15        15. The vacuum filtration apparatus of claim 14 wherein said base contains one or more lid clamp tabs protruding from the outside wall of said base, with the bottom edge of each lid clamp tab of said base being equidistant from the top outer wall of said base.

16. The vacuum filtration apparatus of claim 15 wherein said funnel contains one or more lid clamp tabs protruding from the outside wall of said funnel, with the bottom edge of each lid clamp tab of said funnel being equidistant from the top wall of said funnel, and with the outside diameter of the lid clamp tabs of said funnel being equal to the outside diameter of the lid clamp tabs of said base.

17. The vacuum filtration apparatus of claim 16 wherein said vacuum filtration apparatus contains a lid, with the outer wall of said lid being segmented by a plurality of slots in said outer wall, with each slot creating a gap in the bottom surface of said outer wall,

with the height of said slots being less than the height of the inner surface of said outer wall of said lid, and

with the height of the inner surface of said  
 5 outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid clamp tab of said funnel and the top wall of said funnel, and with the height of inner surface of said outer wall of said lid being equal to or greater than  
 10 the distance between the bottom edge of each lid clamp tab of said base and the top outer wall of said base,

with the diameter of said inner surface of said outer wall of said lid being less than the outside  
 15 diameter of the lid clamp tabs of said base,

whereby said plurality of slots in said outer wall of said lid allows said outer wall of said lid to flex,

whereby said flexing of said outer wall of said  
 20 lid allows said lid to be releasably attached to the one or more lid clamp tabs of said funnel with a fit that prevents said lid from accidentally disengaging from said funnel, and allows said lid to be removed from said funnel with one hand, as the outside

diameter of the lid clamp tabs of said funnel vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances,

whereby said flexing of said outer wall of said  
 30 lid allows said lid to be releasably attached to the one or more lid clamp tabs of said base with a fit that prevents said lid from accidentally disengaging from said base, and allows said lid to be removed  
 35 from said base with one hand, as the outside diameter of the lid clamp tabs of said base vary over the normal production range of dimensional tolerances,

and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances.

18. The vacuum filtration apparatus of claim 17  
5 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a heat seal, said seal forming a closed loop.

19. The vacuum filtration apparatus of claim 17  
10 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with an ultrasonic seal, said seal forming a closed loop.

20. The vacuum filtration apparatus of claim 17  
15 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a solvent seal, said seal forming a closed loop.

21. The vacuum filtration apparatus of claim 17  
20 wherein said vacuum filtration apparatus is disposable.

22. A vacuum filtration apparatus comprising:  
a base containing a funnel well with a  
filter seal surface disposed adjacent to the  
25 bottom of the inside wall of said funnel well, with a filter support means disposed in the bottom of said funnel well inside of said filter seal surface, with an outlet port disposed below said filter support means, said outlet port  
30 being in fluid flow communication with said filter support means,

a funnel with an open top, with the bottom outside portion of said funnel releasably attached to the inside wall of said funnel well  
35 of said base, where the releasable attachment between said funnel and said base is an interference fit between the outer edge of one

5           a filter means disposed in the bottom  
portion of said funnel well with the downstream  
surface of said filter means lying in the same  
plane as said filter seal surface, said filter  
means releasably sealed between said filter seal  
10 surface of said base and the bottom surface of  
said of said funnel,

whereby said one or more integral flexible  
funnel seal rings provide a releasable  
attachment between said funnel and said base,  
15 over the normal production range of dimensional  
tolerances of said interior side wall of said  
funnel well, and over the normal production  
range of dimensional tolerances of the outer  
edge of said one or more integral flexible  
20 funnel seal rings,

whereby the integral flexible funnel seal rings of said funnel allow the funnel to be seated in said funnel well of said base so as to provide a leak tight seal between said filter seal surface of said base and the bottom surface of said of said funnel over the normal production range of dimensional tolerances of said interior side wall of said funnel well of said base, and over the normal production range of dimensional tolerances of the outer edge of said one or more integral flexible funnel seal rings of said funnel.

23. The vacuum filtration apparatus of claim 22  
wherein the top surface of the filter support means  
35 is disposed below said filter seal surface, thereby  
creating a pad well below said filter seal surface.



24. The vacuum filtration apparatus of claim 23 wherein an absorbent pad is disposed in said pad well, with the downstream surface of said absorbent pad resting on the top surface of said filter support means, and with a portion of the downstream surface of said filter means resting on the upstream surface of said absorbent pad.

25. The vacuum filtration apparatus of claim 24 wherein the thickness of said absorbent pad is substantially greater than the height of said pad well,

whereby the outer periphery of the absorbent pad is compressed by the filter means,

whereby said absorbent pad exerts an upward force on the downstream side of said filter means,

whereby said filter means remains in tension in both the dry and wet states,

whereby said filter means remains wrinkle free in both the dry and wet states.

26. The vacuum filtration apparatus of claim 22 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a heat seal, said seal forming a closed loop.

27. The vacuum filtration apparatus of claim 22 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with an ultrasonic seal, said seal forming a closed loop.

28. The vacuum filtration apparatus of claim 22 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a solvent seal, said seal forming a closed loop.

29. The vacuum filtration apparatus of claim 22 wherein said base contains one or more lid clamp tabs protruding from the outside wall of said base, with

the bottom edge of each lid clamp tab of said base being equidistant from the top outer wall of said base.

30. The vacuum filtration apparatus of claim 29  
5 wherein said funnel contains one or more lid clamp tabs protruding from the outside wall of said funnel, with the bottom edge of each lid clamp tab of said funnel being equidistant from the top wall of said funnel, and with the outside diameter of the lid  
10 clamp tabs of said funnel being equal to the outside diameter of the lid clamp tabs of said base.

31. The vacuum filtration apparatus of claim 30 wherein said vacuum filtration apparatus contains a lid, with the outer wall of said lid being segmented  
15 by a plurality of slots in said outer wall, with each slot creating a gap in the bottom surface of said outer wall,

with the height of said slots being less than the height of the inner surface of said outer wall of  
20 said lid,

with the height of the inner surface of said outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid clamp tab of said funnel and the top wall of said  
25 funnel, and with the height of inner surface of said outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid clamp tab of said base and the top outer wall of said base,

30 with the diameter of said inner surface of said outer wall of said lid being less than the outside diameter of the lid clamp tabs of said base,

whereby said plurality of slots in said outer wall of said lid allows said outer wall of said lid  
35 to flex,

whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the

32. The vacuum filtration apparatus of claim 31 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a heat seal, said seal 25 forming a closed loop.

33. The vacuum filtration apparatus of claim 31 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with an ultrasonic seal, said seal forming a closed loop.

34. The vacuum filtration apparatus of claim 31 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a solvent seal, said seal forming a closed loop.

35. The vacuum filtration apparatus of claim 31 wherein said vacuum filtration apparatus is disposable.

36. A vacuum filtration apparatus comprising:

5       a base containing a funnel well with a filter seal surface disposed adjacent to the bottom of the inside wall of said funnel well, with a filter support means disposed in the bottom of said funnel well inside of said filter seal surface, with the top surface of the filter support means disposed below said filter seal surface, thereby creating a pad well below said filter seal surface, with an outlet port disposed below said filter support means, said outlet port being in fluid flow communication with said filter support means,

10       a funnel with an open top, with the bottom outside portion of said funnel releasably attached to the inside wall of said funnel well of said base, where the releasable attachment between said funnel and said base is an interference fit between the outer wall of said funnel, and the inside wall of said funnel well of said base,

15       a filter means disposed in the bottom portion of said funnel well with the downstream surface of said filter means lying in the same plane as said filter seal surface, said filter means releasably sealed between said filter seal surface of said base and the bottom surface of said of said funnel,

20       an absorbent pad disposed in said pad well, with the downstream surface of said absorbent pad resting on the top surface of said filter support means, and with a portion of the downstream surface of said filter means resting on the upstream surface of said absorbent pad,

with the thickness of said absorbent pad being substantially greater than the height of said pad well,

whereby the outer periphery of the absorbent pad  
5 is compressed by the filter means,

whereby said absorbent pad exerts an upward force on the downstream side of said filter means,

whereby said filter means remains in tension in both the dry and wet states,

10 whereby said filter means remains wrinkle free in both the dry and wet states.

37. The vacuum filtration apparatus of claim 36 wherein said base contains one or more lid clamp tabs protruding from the outside wall of said base, with  
15 the bottom edge of each lid clamp tab of said base being equidistant from the top outer wall of said base.

38. The vacuum filtration apparatus of claim 37 wherein said funnel contains one or more lid clamp  
20 tabs protruding from the outside wall of said funnel, with the bottom edge of each lid clamp tab of said funnel being equidistant from the top wall of said funnel, and with the outside diameter of the lid clamp tabs of said funnel being equal to the outside  
25 diameter of the lid clamp tabs of said base.

39. The vacuum filtration apparatus of claim 38 wherein said vacuum filtration apparatus contains a lid, with the outer wall of said lid being segmented by a plurality of slots in said outer wall, with each  
30 slot creating a gap in the bottom surface of said outer wall,

with the height of said slots being less than the height of the inner surface of said outer wall of said lid,

35 with the height of the inner surface of said outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid

clamp tab of said funnel and the top wall of said funnel, and with the height of inner surface of said outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid clamp tab of said base and the top outer wall of said base,

with the diameter of said inner surface of said outer wall of said lid being less than the outside diameter of the lid clamp tabs of said base,

whereby said plurality of slots in said outer wall of said lid allows said outer wall of said lid to flex,

whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said funnel with a fit that prevents said lid from accidentally disengaging from said funnel, and allows said lid to be removed from said funnel with one hand, as the outside diameter of the lid clamp tabs of said funnel vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances,

whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said base with a fit that prevents said lid from accidentally disengaging from said base, and allows said lid to be removed from said base with one hand, as the outside diameter of the lid clamp tabs of said base vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances.

40. The vacuum filtration apparatus of claim 39 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to

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said filter seal surface with a heat seal, said seal forming a closed loop.

41. The vacuum filtration apparatus of claim 39 wherein a portion of the filter means that is in  
5 contact with said filter seal surface, is sealed to said filter seal surface with an ultrasonic seal, said seal forming a closed loop.

42. The vacuum filtration apparatus of claim 39 wherein a portion of the filter means that is in  
10 contact with said filter seal surface, is sealed to said filter seal surface with a solvent seal, said seal forming a closed loop.

43. The vacuum filtration apparatus of claim 39 wherein said vacuum filtration apparatus is  
15 disposable.

44. A vacuum filtration apparatus comprising:  
a base containing a funnel well with a filter seal surface disposed adjacent to the bottom of the inside wall of said funnel well,  
20 with a filter support means disposed in the bottom of said funnel well inside of said filter seal surface, with the top surface of the filter support means disposed below said filter seal surface, thereby creating a pad well below said  
25 filter seal surface, with an outlet port disposed below said filter support means, said outlet port being in fluid flow communication with said filter support means, with said base containing one or more lid clamp tabs protruding  
30 from the outside wall of said base, with the bottom edge of each lid clamp tab of said base being equidistant from the top outer wall of said base,

a funnel with an open top, with the bottom  
35 outside portion of said funnel releasably attached to the inside wall of said funnel well of said base, where the releasable attachment

between said funnel and said base is an interference fit between the outer wall of said funnel, and the inside wall of said funnel well of said base, said funnel containing one or more lid clamp tabs protruding from the outside wall of said funnel, with the bottom edge of each lid clamp tab of said funnel being equidistant from the top wall of said funnel, and with the outside diameter of the lid clamp tabs of said funnel being equal to the outside diameter of the lid clamp tabs of said base,

a filter means disposed in the bottom portion of said funnel well with the downstream surface of said filter means lying in the same plane as said filter seal surface, said filter means releasably sealed between said filter seal surface of said base and the bottom surface of said of said funnel,

an absorbent pad disposed in said pad well, with the downstream surface of said absorbent pad resting on the top surface of said filter support means, and with a portion of the downstream surface of said filter means resting on the upstream surface of said absorbent pad,

a lid, with the outer wall of said lid being segmented by a plurality of slots in said outer wall, with each slot creating a gap in the bottom surface of said outer wall,

with the height of said slots being less than the height of the inner surface of said outer wall of said lid,

with the height of the inner surface of said outer wall of said lid being equal to or greater than the distance between the bottom edge of each lid clamp tab of said funnel and the top wall of said funnel, and with the height of inner surface of said outer wall of said lid



being equal to or greater than the distance between the bottom edge of each lid clamp tab of said base and the top outer wall of said base,

5           with the diameter of said inner surface of said outer wall of said lid being less than the outside diameter of the lid clamp tabs of said base,

          whereby said plurality of slots in said outer wall of said lid allows said outer wall of said lid  
10   to flex,

          whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said funnel with a fit that prevents said lid from accidentally disengaging  
15   from said funnel, and allows said lid to be removed from said funnel with one hand, as the outside diameter of the lid clamp tabs of said funnel vary over the normal production range of dimensional tolerances, and as the inside diameter of said inner  
20   surface of said outer wall of said lid vary over the normal production range of dimensional tolerances,

          whereby said flexing of said outer wall of said lid allows said lid to be releasably attached to the one or more lid clamp tabs of said base with a fit  
25   that prevents said lid from accidentally disengaging from said base, and allows said lid to be removed from said base with one hand, as the outside diameter of the lid clamp tabs of said base vary over the normal production range of dimensional tolerances,  
30   and as the inside diameter of said inner surface of said outer wall of said lid vary over the normal production range of dimensional tolerances.

45. The vacuum filtration apparatus of claim 44 wherein a portion of the filter means that is in  
35   contact with said filter seal surface, is sealed to said filter seal surface with a heat seal, said seal forming a closed loop.

46. The vacuum filtration apparatus of claim 44 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with an ultrasonic seal,  
5 said seal forming a closed loop.

47. The vacuum filtration apparatus of claim 44 wherein a portion of the filter means that is in contact with said filter seal surface, is sealed to said filter seal surface with a solvent seal, said  
10 seal forming a closed loop.

48. The vacuum filtration apparatus of claim 44 wherein said vacuum filtration apparatus is disposable.

49. A vacuum filtration apparatus comprising:  
15 a base containing a funnel well with a filter seal surface disposed adjacent to the bottom of the inside wall of said funnel well, with a filter support means disposed in the bottom of said funnel well inside of said filter  
20 seal surface, with an outlet port disposed below said filter support means, said outlet port being in fluid flow communication with said filter support means,

a funnel with an open top, with the bottom  
25 outside portion of said funnel releasably attached to the inside wall of said funnel well of said base,

a filter seal ring press fitted into said  
30 funnel well of said base with an interference fit between the end surface of said filter seal ring and the inside wall of said funnel well,

a filter means disposed in the bottom  
portion of said funnel well with the downstream  
surface of said filter means lying in the same  
35 plane as said filter seal surface, said filter means sealed with a compression seal between the

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filter seal surface of said filter seal ring,  
and the filter seal surface of said base.

50. The vacuum filtration apparatus of claim 49  
wherein the releasable attachment between said funnel  
5 and said base is an interference fit between the  
outer wall of said funnel, and the inside wall of  
said funnel well of said base.

51. The vacuum filtration apparatus of claim 49  
wherein the releasable attachment between said funnel  
10 and said base is an interference fit between one or  
more integral flexible funnel seal rings protruding  
from the bottom outer periphery of said funnel, and  
the inside wall of said funnel well of said base,  
whereby said one or more integral flexible  
15 funnel seal rings provide a releasable attachment  
between said funnel and said base, over the normal  
production range of dimensional tolerances of said  
interior side wall of said funnel well of said base,  
and over the normal production range of dimensional  
20 tolerances of the outer edge of said one or more  
integral flexible funnel seal rings of said funnel.

52. The vacuum filtration apparatus of claim 51  
wherein the top surface of the filter support means  
is disposed below said filter seal surface, thereby  
25 creating a pad well below said filter seal surface.

53. The vacuum filtration apparatus of claim 52  
wherein an absorbent pad is disposed in said pad  
well, with the downstream surface of said absorbent  
pad resting on the top surface of said filter support  
30 means, and with a portion of the downstream surface  
of said filter means resting on the upstream surface  
of said absorbent pad.

54. The vacuum filtration apparatus of claim 53  
wherein the thickness of said absorbent pad is  
35 substantially greater than the height of said pad  
well,

whereby the outer periphery of the absorbent pad is compressed by the filter means.

whereby said absorbent pad exerts an upward force on the downstream side of said filter means.

5       whereby said filter means remains in tension in  
both the dry and wet states.

whereby said filter means remains wrinkle free in both the dry and wet states.

55. A vacuum filtration apparatus comprising:

10 a base containing a funnel well with a  
filter seal surface disposed adjacent to the  
bottom of the inside wall of said funnel well,  
with a filter support means disposed in the  
bottom of said funnel well inside of said filter  
15 seal surface, with said filter support means  
containing a seal surface at its outer  
periphery, with the top surface of the filter  
support means disposed below said filter seal  
surface, thereby creating a pad well below said  
20 filter seal surface, with an outlet port  
disposed below said filter support means, said  
outlet port being in fluid flow communication  
with said filter support means.

25           a funnel with an open top, with the bottom  
outside portion of said funnel releasably  
attached to the inside wall of said funnel well  
of said base.

a lower filter means disposed in the bottom of said pad well.

an absorbent pad disposed in said pad well  
above said lower filter means, with the  
downstream surface of said absorbent pad resting  
on the upstream surface of said lower filter  
means, with the outer periphery of said lower  
filter means sealed between said seal surface of  
said filter support means and the outer

periphery of the downstream surface of said  
absorbent pad,

a filter means disposed in the bottom  
portion of said funnel well with the downstream  
surface of said filter means lying in the same  
plane as said filter seal surface of said base,  
said filter means releasably sealed between said  
filter seal surface of said base and the bottom  
surface of said of said funnel.

56. The vacuum filtration apparatus of claim 54  
wherein the releasable attachment between said funnel  
and said base is an interference fit between the  
outer wall of said funnel, and the inside wall of  
said funnel well of said base.

57. The vacuum filtration apparatus of claim 54  
wherein said filter seal surface of said base  
contains a groove in at least a portion of its outer  
periphery.